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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,079	06/12/2000	Shanker V. Iyer	39293/JEC/X2	4884

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EXAMINER

WANG, LIANG CHE A

ART UNIT	PAPER NUMBER
2155	11

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/592,079

Applicant(s)

IYER ET AL.

S

Examiner

Liang-che Alex Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. Claims 1-16 have been examined.

#### *Priority*

2. Acknowledgement is made of a claim for domestic priority Under 35 U.S.C. § 119 (e) (to provisional applications 60/139,849 06/10/1999, 60/138,850 06/10/1999, 60/139,033 06/10/1999, 60/139,034 06/10/1999, 60/139,035 06/10/1999, 60/139,036 06/10/1999, 60/139,038 06/10/1999, 60/139,042 06/10/1999, 60/139,043 06/10/1999, 60/139,044 06/10/1999, 60/139,047 06/10/1999, 60/139,048 06/10/1999, 60/139,049 06/10/1999, 60/139,052 06/10/1999, 60/139,053 06/10/1999, 60/139,076 06/11/1999.)
3. It is hereby acknowledged that the following papers have been received and placed of record in the file: **Information Disclosure Statements**, Paper Number 4, as received on 10/15/2001 is considered.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1-5, 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable by Singh et al., US Patent Number 5,758,083, hereinafter Singh in view of Hamano et al., US Patent Number 6,480,595, hereinafter Hamano.

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6. Referring to claim 1, Singh has taught a computer network comprising:

a first edge device (Col 22 line1, first network manager), coupled to a first physical private network (Col 22 line 1, private network is a network), the first edge device configured to create a first table with information of members network reachable through the first edge device (Col 22 lines 5-7), the first table being stored in a first database (Col 22 line 6, the first table is inherently existed since a table in a database is just blocks of memory being occupied, and the information being stored in the database must occupy some blocks of memory, which could be viewed as a table);

a second edge device (Col 22 lines 2, second network manager), coupled to a second physical private network (Col 22 lines 2-3, private network is a network), the second edge device configured to create a second table with information of member networks reachable through the second edge device (Col 22 lines 7-9), the second table being stored in a second database (Col 22 lines 7-9);

wherein, the first and second edge devices enable secure communication between the first and second private networks (Col 8 lines 31-35), and the first edge device shares the information of the member networks of the first table with the second edge device and the second edge device shares the information of the member networks of the second table with the first edge device (Col 22 lines 1-11)

Singh has not explicitly taught wherein the member networks include a group of one or more virtual private networks.

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However, Hamano has taught a table in a database of a network device contains information of a group of one or more virtual private networks (Col 4 lines 29-38, and Figure 3.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Singh such that to have member networks include a group of one or more virtual private networks because both Singh and Hamano teach information accessing from databases, and virtual private networks of Hamano is known in the art as one of a variety of networks.

A person with ordinary skill in the art would have been motivated to make the modification to Singh because having a group of virtual private networks to be listed on the table of Singh's database would expand Singh's member networks and allow a wider and larger groups of devices being benefited from Singh's invention as taught by Hamano.

7. Referring to claim 2, Singh has further taught the computer network of claim 1, wherein the first edge device include logic for:

receiving a new route information (Col 2 lines 32-35, sender is viewed as first edge device, and it filtered event and trap information which is viewed as new route information);

storing the new route information in the first database(this is an inherent feature according to Col 22 lines 9-11, sender and receiver is sharing the information by synchronize the databases, therefore the new route information must be stored in the first database before being synchronized); and

transmitting a portion of the new route information to the second edge device (Col 2 lines 44-47, receiver is viewed as the second edge device which receives the filtered event and trap information from the sender.)

8. Referring to claim 3, Singh has further taught wherein the portion of the new route information is a route name (Col 22 lines 5-11, topology data in first database is considered as new route information, and topology data includes information on connections between devices in a network which could be viewed as route names.)
9. Referring to claim 4, Singh has further taught the computer network of claim 2, wherein the second edge device includes logic for:

receiving the portion of the new route information (Col 2 lines 44-47, receiver is viewed as the second edge device which receives the filtered event and trap information from the sender) ;

accessing the first database based on the portion of the new route information (Col 2 lines 44-47);

retrieving the new route information from the first database (Col 2 lines 44-47);  
and

storing the retrieved route information in the second database this is an inherent feature according to Col 22 lines 9-11, sender and receiver is sharing the information by synchronize the databases, therefore after the synchronization is being, the route information is being stored in the second database.).

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10. Referring to claim 5, Singh has further taught wherein communication between the first and second physical private networks is managed according to a security policy associated with the networks (Col 8 lines 31-35.)
11. Referring to claims 9-13, claims 9-13 encompass the same scope of the invention as that of the claims 1-5. Therefore, claims 9-13 are rejected for the same reason as the claims 1-5.
12. Claims 6-7, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh, in view of Hamano, and in further views of Rowe et al., US Patent Number 6,466,941, hereinafter Rowe.
13. Referring to claim 6, Singh as modified has taught an invention as described in claim 5, Singh has further taught wherein the security policy is defined for a security policy group (Col 8 lines 31-35, distributed network managers is viewed as a security group), the security policy group including virtual private networks (Col 22 lines 1-3, first network and second network are the member networks since they could communicate to each other), a rule controlling access to the member networks (Col 2 lines 15-17, Col 9 lines 61- Col 10 lines 3.)

Singh as modified has not taught the security group provides a hierarchical organization of groups and users allowed to access the virtual private networks..

However, Rowe has taught a content management tool that provides a hierarchical arrangement of data tables (Col 20 lines 39-42) and allowed users to access the system (Col 21 lines 7-13.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Singh such that to have the security group provides a hierarchical organization of groups and users allowed to access the member networks because both Singh and Rowe have taught invention regarding to network database management, and Rowe provides a method of organizing the network database.

A person with ordinary skill in the art would have been motivated to make the modification to Singh because having a hierarchical arrangement is one of the various of way to organize the context of a system, Rowe provide the hierarchical to allow user to have a better visualization with the organized data, which allow users to locate the information faster and easier. Therefore it would be obvious for Singh to use the hierarchical arrangement in Singh's system to provide the users a easy and fast way of locating information. Also, Rowe has taught the limitation of user allowed to access the database, this is a well known feature to have only the authorized users to be able to access the system in order to provide the security to the system, therefore, it would also be obvious for Singh to have users allowed to access the member networks in his invention.

14. Referring to claim 7, Singh as modified has further taught wherein each of the one or more virtual private networks has full connectivity with all other virtual networks (Col 22 lines 1-12, first network and second network has full connectivity with each other) and the security policy defined for the security group is automatically configured for each connection (Col 17 lines 10-15)



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15. Referring to claims 14-15, claims 14-15 encompass the same scope of the invention as that of the claims 6-7. Therefore, claims 14-15 are rejected for the same reason as the claims 6-7.
16. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh, in views of Hamano and Rowe, in further views of Martino Jr. et al., US Patent Number 5,029,206, hereinafter Martino.
17. Referring to claim 8, Singh as modified has taught in invention as described in claim 6. Singh as modified has not taught wherein the security policy provides encryption of traffic among the one or more virtual private networks and the rule is a firewall rule providing access control of the encrypted traffic among the one or more virtual private networks.

However, Martino has taught encryption of traffic among networks, and rules providing access control of the encrypted traffic among the networks (Col 4 lines 27-38.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Singh in views of Rowe such that to have the security policy provides encryption of traffic among the member networks and the rule is a firewall rule providing access control of the encrypted traffic among the member networks.

A person with ordinary skill in the art would have been motivated to make the modification to Singh in views of Rowe because having encrypted traffic between member networks and rules providing access control would enhance the network security as taught by Martino.

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18. Referring to claim 16, claim 16 encompasses the same scope of the invention as that of the claim 8. Therefore, claim 16 is rejected for the same reason as the claim 8.

***Response to Arguments***

19. Applicant's arguments with respect to claims 1-5, 9-13, have been considered but are moot in view of the new ground(s) of rejection.
20. Applicant's arguments filed 9/15/2003, paper number 10, regarding to claim 6-8, 14-16, have been fully considered but they are not persuasive.
21. In that remarks, applicant's argues in substance:
- a. That: Rowe fails, however, to disclose any means for managing a network, configuring virtual private networks, or enhancing any means for managing interoperability between networks. Rowe is therefore not pertinent to the present invention. Even if pertinent, there is not suggestion in the prior to combine Rowe with any other art cited by the examiner. (page 8, section C.)

This is not found persuasive because both Singh and Rowe have taught invention regarding to network database management, and Rowe provides a method of organizing the network database (see title of Rowe) therefore Rowe is pertinent to Singh. And in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge

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generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Singh and Rowe have taught invention regarding to network database management, and Rowe is providing a method of organizing the network database, therefore it would be obvious for a person with ordinary skill in the art to implement the method of Rowe to Singh in order to get the advantage of Rowe's organizing method on Singh.

- b. That: therefore is no suggestion in the prior art to combine Marino with either Singh or Rowe (Page 9, Section D.)


In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

### ***Conclusion***

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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23. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (703) 305-8159. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on (703)308-6662. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications.
26. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

Liang-che Wang   
November 14<sup>th</sup>, 2003

  
**HOSAIN ALAM**  
SUPERVISORY PATENT EXAMINER